<u>ABSTRACT</u>

The present invention relates to an alarm system intended to trigger an alarm signal upon deviation from at least one environment-dependent reference predetermined for a specific environment. The alarm system comprises at least one portable unit intended to be placed in said environment, which unit has a size corresponding to a mobile telephone. Each unit comprises a sensor system adapted for detecting different states comprising at least vibrations. Furthermore, the alarm system comprises a processor member connected to the sensor system and adapted for the comparison of signals received from the sensor system and said predetermined environment-dependent reference/references. The alarm system further comprises a communication member connected to the processor member and adapted for wireless communication upon, for instance, the triggering of an alarm signal. Furthermore, the alarm system comprises a memory member connected to the processor member via a distributed computer network and adapted for the storage of said predetermined reference/references.